Amendments to the Claims

1. (Original) A dual cycle hot gas engine comprising pistons which are movable inside one another, characterized in that a dual external piston (2) is arranged to be axially movable inside a basic cylinder member (1) and a dual internal piston (3) is arranged to be axially movable inside the dual external piston (2).

2. (Original) The hot gas engine as claimed in claim 1, characterized in that the basic cylinder member (1) includes two outer end walls and a central partition in parallel with the same whereby two like spaces are formed in the interior of the basic cylinder member (1).

3. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 2, characterized in that the central partition of the basic cylinder member (1) is formed with a central bore to be able to receive at least one sliding seal (1.1).

4. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 3, characterized in that the dual external piston (2) interconnects two external pistons (2.2 and 2.2) by a hollow piston rod (2.3), and the hollow piston rod (2.3) is guided tightly through the sliding seal (1.1).

5. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 4, characterized in that the dual internal piston (3) interconnects two internal pistons (3.1 and 3.2) by a piston rod (3.3), and the piston rod (3.3) is guided tightly through sliding seals (2.4) which are located in the hollow piston rod (2.3).

6. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 5, characterized in that the end surfaces of the basic cylinder member (1) include magnets (1.2) for mutually repelling interaction with magnets (2.7) disposed in the end surfaces of the dual external piston (2) (springs are conceivable too).

7. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 6, characterized in that the external piston (2.1) has apertures (2.5) in its end surface remote from the magnets which apertures connect the gas space (4.2) with the gas space (4.3).

8. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 6, characterized in that the external piston (2.2) has apertures (2.6) in its end surface remote from the magnets which apertures connect the gas space (5.1) with the gas space (5.2).

9. (Currently amended) the hot gas engine as claimed in ~~any one of the preceding claims, except claim 7~~ claim 6, characterized in that the external piston (2.1) has apertures (2.5) in its end surface facing he magnets which apertures connect the gas space (4.1) with the gas space (6.1); gas space (4.2) becoming a buffer space.

10. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims, except claim 8~~ claim 9, characterized in that the external piston (2.2) has apertures (2.6) in its end surface facing the magnets which apertures connect the gas space (6.2) with the gas space (5.3); gas space (5.2) becoming a buffer space.

11. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 9, characterized in that the gas space (4.1) communicates with the gas space (4.3) via a heater (8), a regenerator (9), and a cooler (10), and that the gas space (5.1) communicates with the gas space (5.3) via a cooler (11), a regenerator (12), and a heater (13).

12. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 11, characterized in that the heater (8 or 13) is replaced by a cooler, and the cooler (10 or 11) is replaced by a heater.

13. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 10, characterized in that the piston rod (3.3) of the dual internal piston (3) is hollow, thus connecting the buffer gas space (6.1) with the buffer gas space (6.2).

14. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 7, characterized in that gas space (403) communicates with gas space (404) and gas space (501) communicates with gas space (504).

15. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 14, characterized in that the first gas connection is linked to one of the two working gas cycles, while the second gas connection is linked to the second working gas cycle.

16. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 15, characterized in that the two gas connections are embodied by passages (208 and 209) in the hollow piston rod (203) of the dual external piston (200).

17. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 16, characterized in that at least one of the passages is formed in the piston rod (303) of the dual internal piston (300).

18. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 1, characterized in that a pulse tube each is provided for both cycles for thermic decoupling of heater and cylinder, the pulse tube being arranged so that is central axis extends at right angles to the central axis of the basic cylinder member (100) of the engine.

19. (Currently amended) The hot gas engine as claimed in ~~any one of the preceding claims~~ claim 1, characterized in that the dual external piston (200) is connected to a piston rod (210) to carry off force, and the piston rod is passed tightly through the cylinder wall to the outside.

20. (Original) The hot gas engine as claimed in claim 19, characterized in that, to carry off force to the outside and to limit the stroke of the dual external piston (200), the piston rod (210) is mechanically connected to the center of a diaphragm, a connecting rod pivoted at a crankshaft, or the coil member of a linear generator.